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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,311

07/20/2006

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EXAMINER

HOOK, JAMES F

ART UNIT

PAPER NUMBER

3754

NOTIFICATION DATE

DELIVERY MODE

05/01/2012

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
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Office Action Summary	Application No. 10/597,311	Applicant(s) MOHRI ET AL.	
	Examiner JAMES HOOK	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-3, 7, 8 and 10-15 is/are pending in the application.
- 5a) Of the above claim(s) 2, 3 and 10 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1, 7, 8 and 11-15 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 7, 8, and 11-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 1 and 11 the recitation that the first and second resin layers are laminated partly in contact with each other is not considered as being taught in this manner in the specification, rather the specification sets forth that this is undesirable since it creates a situation where the metal layer cannot be easily taken out during recycling, and that in this situation of the two layers possibly being in contact that a third layer is provided between them. Therefore, it is considered that the recitation of the first and second resin layers being partly in contact is not actually supported by the specification as applicant's invention but merely as an example of an undesired state, and that would make such a limitation new matter in that the specification does not set forth basis for actually forming the invention in this manner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7, and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bittner in view of Hughey. The reference to Bittner discloses the recited flexible pipe comprising a first resin layer 9, a conductive metal layer 6,7, a second resin layer 11 in this order from below on an outer surface of a corrugated metal pipe 5 for flowing a fluid, wherein the resin layer covers the entire outer surface of the corrugated metal pipe, the conductive layer is constituted by at least one metal tape extending along the corrugated metal pipe, the resin layer is an insulating layer, the first and second resin layers are insulating layers, and the metal layer is constituted by at least one metal tape layer formed as flat wires or strips. The reference to Bittner discloses all of the recited structure with the exception of spacing the metal strips so the first and second resin layers are in partial contact, and forming such in broken portions, as well as the size of the metal strips. The reference to Hughey discloses that it is old and well known in the art to form a first resin layer 14, a conductive metal layer 16 formed of spaced apart spirally wound wires, and a second resin layer 18 formed such that the second resin layer is at least partially in contact with the first resin layer. It would have been obvious to one skilled in the art to modify the conductive metal wire layer 6,7 of Bittner by spacing the spiral wound wires so that the first and second resin

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layers are at least partially contacting one another as suggested by Hughey, where such would inherently allow for better connection of the layers to one another. The thickness of the strip and forming the gaps with broken portions are considered merely choices of mechanical expedients where it would have been obvious to one skilled in the art to use routine experimentation to optimize the thickness of the metal to meet the strength requirements of the tube, and inherently forming the metal wires with spacing would result in broken portion gaps but such would also only require routine skill in the art to modify the shape of the gaps as such are merely choices of mechanical expedients.

With respect to claims 11-13, the reference to Bittner discloses the recited structure above, including a parting layer 10 between the first and second insulating resin layers. The reference to Bittner discloses all of the recited structure with the exception of forming the first and second insulating layers as easily peelable layers, however, since there is no actual structure claimed which is different than that set forth in Bittner it is considered that such would be an inherent property of the plastic in that there is no degree of how peelable the layers need to be and that the plastic layers are inherently capable of being peeled. However, should such be considered an actual limitation that is not inherent to the plastic layers of Bittner then it would have been obvious to one skilled in the art to modify the plastic layers in Bittner to be easily peeled should such require peeling to allow for connection to connectors for connecting the hose to a source of fluid as such would only require routine experimentation to arrive at

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optimum values for the plastics used as such is merely a choice of mechanical expedients.

Claims 1, 7, 8, and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar in view of Bittner and Hughey. The reference to Iyengar discloses the recited flexible pipe comprising a first resin layer 30, a conductive metal layer 36, a second resin layer 22 in this order from below on an outer surface of a corrugated metal pipe 32, wherein the metal layer is constituted by at least one metal tape longitudinally extending along the corrugated metal pipe, the first and second resin layers are insulating layers, the metal layer is a metal plating, the plastic layers can inherently be removed by peeling, and with no specific amount of peeling strength being claimed, such would meet the claim language of claim 11, the layers are laminated and a parting layer 26 is provided between layers to separate or part them. The reference to Iyengar discloses all of the recited structure with the exception of using the pipe for flowing of fluid, however such could be considered intended use. The reference to Bittner discloses that it is old and known that corrugated tubing of the structure similar to that of Iyengar can not only be used to encase wires but can also be used for fluids as well, thereby teaching that a pipe such as Iyengar is capable of use for fluids as well. It would have been obvious to one skilled in the art to utilize the pipe of Iyengar for flowing fluids as suggested by Bittner where such is a known intended use for corrugated pipes of this structure where such can also be used as wire covers, and that the pipes of these structures are capable of use with fluids. The reference to Iyengar discloses all of the recited structure with the exception of spacing the metal strips so the first and

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second resin layers are in partial contact, and forming such in broken portions, as well as the size of the metal strips. The reference to Hughey discloses that it is old and well known in the art to form a first resin layer 14, a conductive metal layer 16 formed of spaced apart spirally wound wires, and a second resin layer 18 formed such that the second resin layer is at least partially in contact with the first resin layer. It would have been obvious to one skilled in the art to modify the conductive metal wire layer 6,7 of Iyengar by spacing the spiral wound wires so that the first and second resin layers are at least partially contacting one another as suggested by Hughey, where such would inherently allow for better connection of the layers to one another. The thickness of the strip and forming the gaps with broken portions are considered merely choices of mechanical expedients where it would have been obvious to one skilled in the art to use routine experimentation to optimize the thickness of the metal to meet the strength requirements of the tube, and inherently forming the metal wires with spacing would result in broken portion gaps but such would also only require routine skill in the art to modify the shape of the gaps as such are merely choices of mechanical expedients.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Takagi (526 and 324) disclosing state of the art tubes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES HOOK whose telephone number is (571)272-4903. The examiner can normally be reached on Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James F. Hook/
Primary Examiner, Art Unit 3754

JFH